U.S. Army Center for Health Promotion and Preventive Medicine

Just the Facts

25-010-0198

The Laser/Optical Radiation Program: Professional Training and Services

The Laser/Optical Radiation Program provides:

► Required training for LSOs, RPOs, and other related personnel.

► Cost-Effective On-Site Training

► Specialized Professional Service

Purpose.

To provide information on training and services offered by the United States Army Center for Health Promotion and Preventive Medicine (USACHPPM) -- Laser/Optical Radiation Program.

Background.

The Laser/Optical Radiation Program manages the Army's laser and high intensity optical source Nonionizing Radiation Protection Program. In accordance with AR 385-63, AR 40-5, and ANSI Z136.1, the U.S. Army Center for Health Promotion and Preventive Medicine (formerly the U.S. Army Environmental Hygiene Agency) is required to survey installations to evaluate hazards, make recommendations, and train personnel, such as LSOs, LRSOs, RPOs, and other related personnel. Training topics include bioeffects, control measures, laser theory, applicable standards, medical surveillance, and other pertinent information on laser safety, especially when dealing with class 3b or 4 lasers or laser range controls.

The Laser/Optical Radiation Program:

• **Provides** technical support for Army, DOD, national, and international laser and optical source radiation protection standards.

• **Evaluates** lasers and other high intensity optical sources to assess potential health hazards.

• **Conducts** on-site health hazard surveys.

Specialized Training and Services.

• Laser and Radiofrequency Radiation Hazards Course.
• Cost-Effective, Individualized Laser/Optical Training and Services.
• Detailed, Technical, On-Site Training and Consultations.
• Site Surveys.
• System and Safety Analyses.
• Health Hazard Assessments (HHAs).

Laser/Optical Radiation Program
U.S. Army Center for Health Promotion and Preventive Medicine
DSN 584-3932 or Commercial 410-671-3932

Annual Course Description (6H-F17/323-F17).

The course is designed to provide a background for recognizing health risks from nonionizing radiation sources and for establishing effective control measures for these hazards. The course is intended for Radiation Protection Officers, Safety Officers, and related health and safety personnel whose responsibilities include nonionizing radiation protection (NIRP). This course has been offered every spring for the past thirty years. The subject matter presented includes:

- Interaction of optical radiation with matter.
- Sources and biological effects of optical radiation.
- Permissible exposure levels and eye protective filters.
- Optical radiation measurements and calculations.
- Hazards from UVR and non-laser high intensity light sources.
- Laser hazard classification and development of laser protection standards.
- Laser range controls and laser laboratory controls.
- Radiofrequency radiation (RFR): microwave frequency bands, ultrasound sources, and systems.
- RFR generation and propagation along transmission lines and in free space.
- RFR power density calculations and biological effects of RF radiation.
- Current electromagnetic field issues: standards, exposure limits, and control procedures or RFR sources.
- RFR instrumentation, antennas, and radiation patterns.

Questions?

To request service, call us or visit our "Services" page at http://chppm-www.apgea.army.mil/laser/laser.html. Further questions or requests can be referred to the USACHPPM, Laser/Optical Radiation Program, DSN 584-3932 or Commercial (410) 436-3932.